CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 94-112
NPDES PERMIT NO. CA0037494

WASTE DISCHARGE REQUIREMENTS FOR:

CITY OF PACIFICA
SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter called the Board, finds that:

1. The City of Pacifica, hereinafter called the discharger, submitted a Report of Waste Discharge dated July 28, 1994 for reissuance of waste discharge requirements and a permit to discharge wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES).

2. This discharge is presently regulated by Waste Discharge Requirements in Order No. 89-118, adopted by the Board on July 19, 1989. Previously adopted Waste Discharge Requirements Orders Nos. 74-166, 79-23, and 79-111 are currently also in effect, as are Cease and Desist Order No. 76-101 and amending Order No. 78-31. The Board adopted Cease and Desist Order No. 93-112 on September 15, 1993 for permit violations and outfall deficiencies.

3. The City of Pacifica owns and operates a wastewater treatment plant which provides secondary treatment of domestic wastewater from the City of Pacifica. The treatment plant has a dry weather treatment capacity of 3.3 million gallons per day (MGD), and presently discharges an average dry weather flow of 1.4 MGD (1993 flow data). Treated effluent from the plant is discharged to the Pacific Ocean, waters of the State and the United States. Effluent is discharged west of the Pacifica municipal fishing pier, through a submerged, 24- to 26-inch diameter outfall pipe terminating in a 313-foot long, multiport diffuser with a diameter ranging from 18 to 26 inches, and ending 2,670 feet offshore. Effluent is discharged at a depth of 30.8 feet below mean lower low water, through diffuser ports on risers which are approximately 9.8 feet above the ocean floor. The discharge has a minimum initial dilution of 92:1. The coordinates of the outfall are 37 deg. 37 min. 55 sec. north latitude, and 122 deg. 30 min. 30 sec. west longitude.

4. The U.S. Environmental Protection Agency (USEPA) and the Board have classified this discharge as a major discharge.

5. Wastewater is conveyed to the treatment plant by gravity from the area north of the plant, and from the area south of the plant via a force main, which originates at the Linda Mar pump station, approximately three miles south of the plant. A bulk lime feeder located at the Linda Mar pump station is used to elevate the pH of the wastewater in the force main in order to control odors at the plant headworks and reduce corrosion of the steel force main pipe.

6. The treatment process presently consists of the following unit processes: automatic filter screens, comminution, grit removal, primary sedimentation (two basins), activated sludge aeration, secondary clarification (two rectangular, travelling-bridge clarifiers), disinfection with chlorine (three contact tanks, in series), dechlorination with sulfur dioxide, and effluent pumping to the outfall. A treatment process schematic diagram is included as Attachment C.

7. Sludge from the primary sedimentation basins is pumped to one of two anaerobic digestors. Scum from the primary basins is collected in troughs and pumped to the digestors via the sludge mixing system. Waste activated sludge and scum from the secondary clarifiers are pumped to dissolved air flotation thickeners, and the thickened sludge is then pumped to the anaerobic digestors. Stabilized sludge from the digestors is dewatered by centrifuges, and hauled away for land disposal at authorized sites.

8. The treatment plant has a limited ability to handle peak and sustained wet weather flows, with the following reported capacities and operational limitations. The primary system has a hydraulic capacity of 8 to 10 MGD under normal, automatic operational conditions, and, under manual operations, a maximum capacity of 25 MGD. The secondary tanks have a peak hydraulic capacity of 6 to 7 MGD, and sustained peak capacity of 4 to 5 MGD (sustained flows being those greater than 4 MGD for more than 48 hours).

   Peak flows in excess of 5 MGD are automatically bypassed around the secondary system, and mixed with the secondary effluent in the chlorine contact basins prior to the effluent pumping to the outfall. If sustained flows occur, threatening wash-out of the secondary system solids, the secondary flow restriction valve is throttled, restricting flows to the secondary tanks with the excess flow being bypassed to the chlorine contact tanks and effluent pumps, as occurs with the automatic bypassing. Automatic bypassing of the secondary system occurs for flows up to 9 MGD.

   Flows above 9 MGD will cause the flow to backup in the primary tanks, submerging the primary effluent weirs and washing out the scum blanket. In order to prevent this wash-out, the wet weather flow control valve is manually opened to allow flows above 9 MGD to pass through a wet weather flow meter and on to the effluent pump wet well.

   The wet weather bypasses that are designed into the operational procedure have led to violations of permit limits which form the basis of Cease and Desist Order No. 93-112. Requirements of that enforcement order are summarized below under Findings 12 and 13.

9. The State Water Resources Control Board (State Board) adopted a revised Water Quality Control Plan for Ocean Waters of California (Ocean Plan) on March 22, 1990. The Ocean Plan contains a listing of beneficial uses and water quality objectives for the ocean waters of the State. This Order implements the plans, policies and provisions of the Ocean Plan

10. The beneficial uses of ocean waters of the State identified in the Ocean Plan include:

   - Navigation
   - Water Contact Recreation
   - Non-contact Water Recreation
   - Commercial and Sport Fishing

- Mariculture
- Preservation of Rare and Endangered Species
- Fish Migration
- Fish Spawning
- Shellfish Harvesting
- Marine Habitat
- Preservation of Areas of Special Biological Significance
- Industrial Service Supply

11. Effluent limitations in this permit are based on the plans, policies, and water quality objectives and criteria of the Ocean Plan, *Quality Criteria for Water* (EPA 440/5-86-001, 1986; Gold Book), Applicable Federal Regulations (40 CFR Parts 122 and 131), the National Toxics Rule (57 FR 60848, 22 December 1992; NTR), and Best Professional Judgment.

12. The Regional Board issued Cease and Desist Order No. 93-112 to the City of Pacifica for violations of the existing NPDES permit and for a deficient ocean outfall. In that order, the Board found that the City's existing wastewater treatment plant has practically no redundancy or backup system, and is therefore extremely unreliable in responding to critical conditions (e.g., wet weather or process unit repairs) without causing violations of effluent limitations. In addition, much of the plant's existing equipment has fallen into a state of disrepair. The Board also found that the discharge outfall has extensive cracks, due to the selection of inappropriate materials for its construction, and that the diffusers often plug with sand in the winter, making the outfall system inoperable.

    Cease and Desist Order No. 93-112 establishes time schedules for the City of Pacifica to take necessary measures to achieve full compliance with NPDES permit requirements.

13. In accordance with Order No. 93-112, the City of Pacifica has conducted various studies to either expand the existing treatment plant or to construct a new facility at a different site. Preliminary findings suggest that expansion of the existing plant and repair of the outfall would be difficult and may not be economically feasible. Final engineering design of the selected treatment plant alternative will be completed by March 30, 1995. Full compliance with permit requirements is required by October 30, 1997.

14. The discharge location is not within the Monterey Bay National Marine Sanctuary (MBNMS), established in September 1992. The boundary of the MBNMS is located approximately 4.5 miles south of the outfall, at Point San Pedro, and 6.5 miles west of the outfall in the Pacific Ocean.

15. The 1986 Basin Plan initiated the Effluent Toxicity Characterization Program (ETCP) in which certain major dischargers (not including the City of Pacifica) were required to monitor their effluent using critical life stage toxicity tests to generate information on toxicity test species sensitivity and effluent variability to allow development of appropriate chronic toxicity effluent limitations.

    Because the discharger's design flow is less than 5 MGD, the Board did not require the discharger to participate in the ETCP. Nevertheless, wet weather flows exceed the 5 MGD threshold, and to date it has not been determined whether the effluent exhibits chronic toxicity,

during dry or wet weather. This permit may be amended in the future to include chronic toxicity effluent limits and monitoring requirements.

16. Federal Regulations for storm water discharges were promulgated by the U.S. Environmental Protection Agency on November 19, 1990. The regulations [40 Code of Federal Regulations (CFR) Parts 122, 123, and 124] require specific categories of industrial activity (industrial storm water) to obtain a NPDES permit and to implement Best Available Technology Economically Available (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial storm water discharges.

17. The storm water flows from the wastewater treatment facility process areas are directed to the wastewater treatment plant headworks and treated along with the wastewater discharged to the treatment plant. These storm water flows constitute all industrial storm water at this facility and consequently this permit regulates all industrial storm water discharges at this facility.

18. The sanitary sewer collection system for the City of Pacifica is operating at capacity in a few locations, which increases the likelihood that spills from the collection system, manholes, and pump stations may occur. However, in 1984, 1986, and 1988, trunkline replacement programs were completed in the Linda Mar and northern sections of the City of Pacifica, which greatly improved the system's capability to handle peak flows. Currently, during extreme wet weather, some side sewers will surcharge, but all within the capacity of the system. The discharger's collection system contains 3 pump stations. The stations have adequate alarms, pump capacity and redundancy, and provision for emergency power.

19. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant, collection system, and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual must be kept updated to reflect significant changes in treatment and collection facility equipment and operation practices.

20. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.

21. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity to submit their written views and recommendations.

22. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the City of Pacifica shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater at a location or in a manner different from that described in Finding No. 3 is prohibited.

2. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited.

3. The average dry weather flow discharge shall not exceed 3.3 MGD. The average dry weather flow shall be determined over three consecutive dry weather months each year.

4. The discharge of wastewater effluent at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited.

5. The discharge of wastewater effluent to the ocean, other than through the deepwater outfall as described in this Order, is prohibited.

6. Storm water discharges shall not cause pollution, contamination, or nuisance.

B. EFFLUENT LIMITATIONS

The term "effluent" in the following limitations means the fully treated wastewater effluent from the discharger's wastewater treatment facility, as discharged to the Pacific Ocean.

1. The effluent discharged to the Pacific Ocean shall not exceed the following limits:

	Constituent	Units	Monthly Average	Weekly Average	Daily Maximum	Instantaneous Maximum
a.	Biochemical Oxygen Demand (BOD_5, 20°C)	mg/l	25	40	50	---
b.	Total Suspended Solids	mg/l	30	45	60	---
c.	Oil & Grease	mg/l	10	---	20	---
d.	Settleable Matter	ml/l-hr	0.1	---	---	0.2
e.	Turbidity	NTU	75	100	225	---
f.	Total Chlorine Residual[1]	mg/l	---	---	---	0.0
g.	Acute Toxicity Conc.[2]	tu	1.5	2.0	2.5	---

[1] Requirement defined as below the limit of detection in standard test methods defined in *Standard Methods for the Examination of Water and Wastewater*.

[2] Acute Toxicity Concentration (tu) = $\frac{100}{\text{96-hr. LC50}}$

When it is not possible to determine the 96-hour LC50 from the bioassay test results, the toxicity concentration shall be calculated by the following:

$$(\text{tu}) = \frac{\log (100 - S)}{1.7}$$

where S = percent survival in 100 % final effluent. If $S \geq 99$, tu shall be reported as zero.

2. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.

3. The moving median value for the Most Probable Number (MPN) of total coliform bacteria in any five consecutive effluent samples shall not exceed 1,000 MPN per 100 milliliters (1,000 MPN/100ml).
   Any single sample shall not exceed 10,000 MPN/100ml.

4. The arithmetic mean of the biochemical oxygen demand (five-day, 20°C) and total suspended solids values, by weight, for effluent samples collected in each calendar month shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period (85 percent removal).

5. TOXIC SUBSTANCES EFFLUENT LIMITATIONS

Representative samples of the effluent shall not exceed the following limits[1]:

OBJECTIVES FOR THE PROTECTION OF MARINE AQUATIC LIFE:

Constituents	Units of Measure-ment	6 - Month median	Daily Maximum	Instantaneous Maximum
Arsenic	ug/l	468	2700	7164
Cadmium	ug/l	93	372	930
Chromium (VI)[2]	ug/l	186	744	1860
Copper	ug/l	95	932	2606
Lead	ug/l	186	744	1860
Mercury	ug/l	3.674	14.834	37.154
Nickel	ug/l	465	1860	4650
Selenium	ug/l	1395	5580	13950
Silver	ug/l	50.38	245.68	636.28
Zinc	ug/l	1124	6704	17864
Cyanide	ug/l	93	372	930
Total Chlorine Residual	ug/l	186	744	5580
Ammonia (as N)	mg/l	55.8	223.2	558
Phenolic Compounds	ug/l	2790	11160	27900
Chlorinated Phenolics	ug/l	93	372	930
Endosulfan	ng/l	837	1674	2511
Endrin	ng/l	186	372	558
HCH	ng/l	372	744	1116
Radioactivity	Not to exceed limits specified in Title 17, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30269 of the California Administrative Code.			

OBJECTIVES FOR THE PROTECTION OF HUMAN HEALTH:

Constituents	Units of Measurement	30-day Average
Acrolein	ug/l	20460
Antimony	mg/l	111.6
Bis (2-chloroethoxy) methane	ug/l	409.2
Bis (2-chloroisopropyl) ether	mg/l	111.6
Chlorobenzene	ug/l	53010
Chromium (III)	mg/l	17670
Di-n-butyl phthalate	mg/l	325.5
Dichlorobenzenes	mg/l	474.3
1,1-Dichloroethylene	mg/l	660.3
Diethyl phthalate	mg/l	3069
Dimethyl phthalate	mg/l	76260
4,6-Dinitro-2-methylphenol	ug/l	20460
2,4-Dinitrophenol	ug/l	372
Ethylbenzene	mg/l	381.3
Fluoranthene	ug/l	1395
Hexachlorocyclopentadiene	ug/l	5394
Isophorone	mg/l	13950
Nitrobenzene	ug/l	455.7
Thallium	ug/l	1302
Toluene	mg/l	7905
1,1,2,2-Tetrachloroethane	mg/l	111.6
Tributyltin	ng/l	130.2
1,1,1-Trichloroethane	mg/l	50220
1,1,2-Trichloroethane	mg/l	3999
Acrylonitrile	ug/l	9.3
Aldrin	ng/l	20.46
Benzene	ug/l	548.7
Benzidine	ng/l	6.417
Beryllium	ng/l	3069
Bis (2-chloroethyl) ether	ug/l	4.185
Bis (2-ethylhexyl) phthalate	ug/l	325.5
Carbon tetrachloride	ug/l	83.7
Chlordane	ng/l	2.139

Constituents	Units of Measurement	30-day Average
Chloroform	mg/l	12.09
DDT	ng/l	15.81
1,4-Dichlorobenzene	ug/l	1674
3,3'-Dichlorobenzidine	ng/l	753.3
1,2-Dichloroethane	mg/l	12.09
Dichloromethane	mg/l	41.85
1,3-Dichloropropene	ug/l	827.7
Dieldrin	ng/l	3.72
2,4-Dinitrotoluene	ug/l	241.8
1,2-Diphenylhydrazine	ug/l	14.88
Halomethanes	mg/l	12.09
Heptachlor	ng/l	66.96
Hexachlorobenzene	ng/l	19.53
Hexachlorobutadiene	ug/l	1302
Hexachloroethane	ug/l	232.5
N-nitrosodimethylamine	ug/l	678.9
N-nitrosodiphenylamine	ug/l	232.5
PAHs	ng/l	818.4
PCBs	ng/l	1.767
TCDD equivalents	pg/l	0.3627
Tetrachloroethylene	ug/l	9207
Toxaphene	ng/l	19.53
Trichloroethylene	ug/l	2511
2,4,6-Trichlorophenol	ug/l	26.97
Vinyl chloride	ug/l	3348

[1] These limits are based on Ocean Plan water quality objectives, calculated using the minimum dilution value of 92:1, as required by implementation provisions of Chapter IV of the Ocean Plan.

[2] The discharger may at its option meet this limit as total chromium.

C. RECEIVING WATER LIMITATIONS

1. Floating particulates and oil and grease shall not be visible.

2. The discharge of wastewater shall not cause aesthetically undesirable discoloration of the ocean surface.

3. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of effluent.

4. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.

5. The dissolved oxygen concentration shall not at any time be depressed more than ten percent from that which occurs in the surrounding receiving waters, as the result of the discharge of oxygen demanding waste materials.

6. The pH shall not be changed at any time more than 0.2 units from that which occurs in the surrounding receiving waters.

7. The dissolved sulfide concentration of waters in and near the sediments shall not be significantly increased above that present under natural conditions.

8. The concentration of substances set forth in Chapter IV, Table B of the California Ocean Plan, dated March 22, 1990, in marine sediments shall not be increased to levels that would degrade indigenous biota.

9. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine aquatic life.

10. Nutrients attributable to the discharge shall not cause objectionable aquatic growths or degrade indigenous biota.

11. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.

12. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

13. The concentration of organic materials in the tissues of fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

14. The following bacteriological limits shall not be exceeded throughout the water column, (a) within a zone bounded by the shoreline and either the 30-foot depth contour or a distance of 1,000 feet from the shoreline, whichever is greater; and (b) in areas outside this zone used for water contact recreation:

Parameter Applicable to any 30-day period	Total Coliform (MPN/100ml)	Fecal Coliform (MPN/100ml)
Maximum[1]	10,000	---
80% of Samples	1,000	---
Log Mean	---	200
90% of Samples[2]	---	400

[1] Verified by repeat sample taken within 48 hours
[2] Applicable to any 60-day period

15. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated and approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Board will revise and modify this Order in accordance with such more stringent standards.

D. SLUDGE MANAGEMENT PRACTICES

1. All sludge generated by the discharger must be disposed of in a municipal solid waste landfill, reused by land application, or disposed of in a sludge-only landfill in accordance with 40 CFR Part 503. If the discharger desires to dispose of sludge by a different method, a request for permit modification must be submitted to the USEPA 180 days before start-up of the alternative disposal practice. All the requirements in 40 CFR 503 are enforceable by USEPA whether or not they are stated in an NPDES permit or other permit issued to the discharger.

2. Sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.

3. Duty to mitigate: The discharger shall take all reasonable steps to prevent or minimize any sludge use or disposal which has a likelihood of degrading human health or the environment.

4. The discharge of sewage sludge shall not cause waste material to be in a position where it is, or can be carried from the sludge treatment and storage site and deposited in the waters of the State.

5. The sludge treatment and storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the temporary

storage site. Adequate protection is defined as protection from at least a 100-year storm and protection from the highest possible tidal stage that may occur.

6. The discharger shall submit an annual report to the USEPA and the Board containing monitoring results and pathogen and vector attraction reduction requirements as specified by 40 CFR 503, postmarked February 19 of each year, for the period covering the previous calendar year.

7. Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR 258. In the annual self-monitoring report, the discharger shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.

8. Permanent on-site sludge storage or disposal activities are not authorized by this permit.

9. Sludge Monitoring and Reporting Provisions of this Board's "Standard Provisions and Reporting Requirements," dated August 1993, apply to sludge handling, disposal and reporting practices.

10. The Board may amend this permit prior to expiration if changes occur in applicable state and federal sludge regulations.

E. PROVISIONS

1. Requirements prescribed by this Order supersede the requirements prescribed by Order Nos. 89-118, 74-166, 79-23, 79-111, and Cease and Desist Order Nos. 76-101 and 78-31. Order Nos. 89-118, 74-166, 79-23, 79-111, 76-101 and 78-31are hereby rescinded. Cease and Desist Order No. 93-112 shall remain in full force and effect until compliance with Waste Discharge Requirements is achieved in accordance with the time schedule established therein.

2. Where concentration limitations in mg/l or μg/l are contained in this Permit, the following Mass Emission Limitations shall also apply.

   (Mass Emission Limit in kg/day) = (Concentration Limit in mg/l) x (Actual Flow in million gallons per day averaged over the time interval to which the limit applies) x 3.78 (conversion factor).

3. The discharger shall comply with all sections of this Order immediately upon adoption.

4. Compliance with Effluent Limitation B.1.g shall be determined using 96-hour flow-through fish bioassays, and one of the following test species: three-spine stickleback, fathead minnow, or rainbow trout.

5. Compliance With Toxic Substances Limitations

   a. The discharger shall comply with Effluent Limitations B.5 immediately upon

adoption of this Order. The discharger may request an extended compliance time schedule for particular substances, based on the implementation of an aggressive source control and pollution prevention program. Justification for longer compliance periods must include, at a minimum, all of the following:

(1) Results of a diligent effort to quantify pollutant levels in the discharge and the sources of the pollutant in the waste stream;

(2) Documentation of source control efforts currently underway or completed, including compliance with the General Source Control/Waste Minimization program described in the Basin Plan;

(3) A proposed schedule for additional source control measures or waste treatment; and

(4) A demonstration that the proposed schedule is as short as possible.

6. Source Control / Pollution Prevention Program

a. The discharger shall continue to implement and expand its pollution prevention program. The discharger shall submit a pollution prevention plan, acceptable to the Executive Officer, by the due date listed below. The discharger shall submit annual reports, beginning **February 15, 1996**, that document its efforts and present an evaluation of the program's success. The discharger shall target constituents found to be not in compliance with effluent limits or potentially in violation of effluent limits.

b. The discharger shall participate in the general pollution prevention (formerly waste minimization) program as described in the Basin Plan Chapter IV, "Waste Minimization" Section (September 1992 Basin Plan Amendments).

c. The discharger shall complete the following tasks according to the specified compliance schedules:

	Task		Deadline
(1)	Submit Pollution Prevention Plan		February 15, 1995
(2)	Source Identification Study		
	(a)	Complete study for any targeted effluent constituents	October 30, 1995
	(b)	Develop and initiate source reduction plan	April 30, 1996
	(c)	Complete implementation of the source reduction plan to reduce pollutant loading to the maximum extent possible	April 30, 1997

7. If the discharger chooses to pursue a capacity increase for the treatment plant, information that must be submitted prior to Board consideration of a flow increase must include, but may not be limited to, the following:

   a. Engineering reports documenting adequate reliability, capacity and performance of the completed improvements to the treatment facility;

   b. Documentation that increased discharges (evaluation must include assessment of wet weather flows) will not result in degradation of receiving waters, or adverse impacts on beneficial uses of receiving waters, in accordance with State and Federal regulations;

   c. Plans for including reuse of the treated effluent as an integral part of the wastewater management plan; and

   d. Documentation of compliance with the CEQA.

April 15 Reporting Requirements

8. The discharger shall review, and update as necessary, its Operations and Maintenance Manual, annually, or within 90 days of completion of any significant facility or process changes. The discharger shall submit to the Board, by April 15 of each year, a letter describing the results of the review process including an estimated time schedule for completion of any revisions determined necessary, and a description or copy of any completed revisions.

9. Annually, the discharger shall review and update as necessary, its Contingency Plan as required by Board Resolution 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code. Plan revisions, or a letter stating that no changes are needed, shall be submitted to the Board by April 15 of each year.

10. The discharger shall implement a program to regularly review and evaluate its wastewater collection, treatment and disposal facilities in order to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the discharger's service responsibilities. A Treatment Facilities Evaluation Program report discussing the status of this evaluation program, including any recommended or planned actions, shall be submitted to the Board by April 15 of each year.

11. The discharger shall comply with the Self-Monitoring Program for this order, as adopted by the Board and as may be amended by the Executive Officer.

12. The discharger shall comply with all applicable items of the attached "Standard

Provisions and Reporting Requirements," dated August 1993, or any amendments thereafter.

13. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

    To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. (Refer to Standard Provisions, referenced above). The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and a statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

14. The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge(s) governed by this Order are causing or significantly contributing to adverse impacts on water quality and/or beneficial uses of the receiving waters.

15. This Order expires on September 21, 1999. The discharger must file a report of waste discharge in accordance with Title 23, Division 3, Chapter 9, Article 3 of the California Administrative Code not later than 120 days before this expiration date as application for reissuance of waste discharge requirements.

16. This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, EPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 21, 1994.

STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachments:

A. Location/Site Maps
B. Summary of Report Due Dates/Deadlines
C. Process Schematic
D. Contingency Plan - Regional Water Board Resolution No. 74-10
E. Self-Monitoring Program
F. Regional Water Board NPDES Standard Provisions and Reporting Requirements - August 1993

ATTACHMENT B

SUMMARY OF REPORT DUE DATES AND ACTION DEADLINES

DUE DATE TO BOARD	NAME OF REPORT/ACTION	REFERENCE
A. ANNUAL REPORTS		
February 15*	Source Control/Pollution Prevention*	E. 6
February 19	Sludge Monitoring	D. 6
April 15	Operations & Maintenance Manual	E. 8
April 15	Contingency Plan	E. 9
April 15	Treatment Facilities Eval. Program	E. 10

* First annual report due in 1996; Pollution Prevention Plan due in 1995

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

CITY OF PACIFICA
SAN MATEO COUNTY

NPDES PERMIT NO. CA0037494
ORDER NO. 94-112

CONSISTS OF

PART A (dated August 1993)

AND

PART B

CITY OF PACIFICA
SELF MONITORING PROGRAM
ORDER NO. 94-112

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	Description
A-001	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment, and exclusive of any return flows or process sidestreams.

B. EFFLUENT

Station	Description
E-001	At any point in the treatment facilities between the point of discharge and the point at which all waste tributary to the outfall is present (may be the same as E-001D).
E-001D	At any point in the treatment facilities at which point adequate contact with the disinfectant is assured.

C. RECEIVING WATERS

Station	Description
C-1	At the shoreline, 500 feet north of the outfall line.
C-2	At the shoreline, 1000 feet north of the outfall line.
C-3	At the shoreline, 500 feet south of the outfall line.
C-4	At the shoreline, 1000 feet south of the outfall line.
C-5	At a point 1000 to 2000 feet offshore, 1000 feet north and perpindicular to the diffuser.
C-6	At a point 1000 to 2000 feet offshore, 1500 feet north and perpindicular to the diffuser.
C-7	At a point located in the center of the discharge plume.
C-8	At a point 1000 to 2000 feet offshore, 1000 feet south and

perpindicular to the diffuser.

C-9	At a point 1000 to 2000 feet offshore, 1500 feet south and perpindicular to the diffuser.
C-10	At the end of the municipal pier in line with the outfall.

D. LAND OBSERVATIONS

Station	Description
P-1 through P-*n*	Points along the perimeter of the wastewater treatment facilities, at equidistant intervals not to exceed 500 feet.

Note: A sketch showing the locations of these stations shall accompany each monthly report and the annual report for each calendar year.

E. OVERFLOWS AND BYPASSES

Station	Description
OV-1 through	At points in the collection system including manholes, pump stations, or any other location where overflows and bypasses occur.

Notes: (1) A map and description of each known overflow or bypass location shall accompany the annual report for each calendar year.

(2) Each occurrence of an overflow or bypass shall be reported to the Regional Board in accordance with the reporting requirements specified in Sections F.1 and F.2 of Part A.

II. SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS

The schedule of sampling, measurements, and analysis shall be that given as Table 1 (and Table 1 footnotes).

III. MODIFICATIONS TO PART A

A. This monitoring program does not include the following sections of Part A: C.5 and D.4.

B. Paragraph G.5 of Part A is revised to read:

Average weekly and monthly values are calculated as the sum of all daily discharge values measured during the specified period (calendar week or calendar month), divided by the number of daily discharge values measured during that specified period.

IV. REPORTING REQUIREMENTS

A. Self-monitoring reports for each calendar month shall be submitted monthly, to be received no later than the 15th day of the following month. The required contents of these reports are specified in Section F.4 of Part A.

B. An annual report covering the previous calendar year shall be submitted to the Regional Board by January 30th of each year. The required contents of the annual report are specified in Section F.5 of Part A.

C. Any overflow, bypass, or other significant non-compliance incident that may endanger public health or the environment shall be reported according to Sections F.1 and F.2 of Part A.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing self-monitoring program:

1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order 94-112.

2. Was ordered by the Board on September 21, 1994.

3. May be reviewed at any time subsequent to the above date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

STEVEN R. RITCHIE
EXECUTIVE OFFICER

Attachments: Table 1 with footnotes
Part A of Self-Monitoring Program, dated August 1993

Table 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS (1)

Sampling Station		A-001	E-001			E- 001D		All P Sta.	All OV Sta.	All C Sta.	Misc. Observ.
TYPE OF SAMPLE	Units	C-24	G	C-24	Cont.	G	C-24	O	O	G	O
Flow Rate	mgd				D (1)						
BOD, 5-day, 20 deg C, CBOD; or COD	mg/l & kg/day	2/W		3/W							
Chlorine Residual & Dosage (2)	mg/l & kg/day		2H or Cont.			2H or	Cont.				
Total Suspended Solids	mg/l & kg/day	2/W		D							
Oil & Grease	mg/l & kg/day	2/M	2/M								
Settleable Matter	ml/l-hr & cu. ft./day		D								
Turbidity	NTU			D							
Fish Toxicity 96-hr. LC50	tu			M (4)							
Ammonia Nitrogen & Un-ionized Ammonia	mg/l &kg/day			M (5)							
pH	pH units		D	M (5)							
Dissolved oxygen	mg/l and % Saturation		D	M (5)							
Temperature	deg C		D	M (5)							
Coliform (Total or Fecal) (3)	MPN/100 ml					5/W				M (3)	
Salinity	ppt										
Secchi Disc	inches										
Sulfides (if DO<5.0 mg/l) Total & Dissolved	mg/l		D				D				
All Applicable Standard Observations			D					2/W	E	M	
Daily Rainfall											Cont.
Dewatered Sludge											D (7)
Arsenic	ug/l			M (6)							
Cadmium	ug/l			M (6)							
Chromium(IV)	ug/l			M (6)							
Copper	ug/l			M (6)							
Lead	ug/l			M (6)							
Mercury	ug/l			M (6)							
Nickel	ug/l			M (6)							
Selenium	ug/l			M (6)							
Silver	ug/l			M (6)							
Zinc	ug/l			M (6)							
Cyanide	ug/l			M (6)							
Phenolic Compounds	ug/l			M (6)							
Chlorinated Phenolics	ug/l			Y (6)							
Endosulfan	ng/l			Y (6)							
Endrin	ng/l			Y (6)							
HCH	ng/l			Y (6)							
Radioactivity	pCi/l			Y (6)							
Acrolein	ug/l			Y (6)							
Antimony	mg/l			Y (6)							
Bis (2-chloroethoxy) methane	ug/l			Y (6)							
Bis (2-chloroisopropyl) ether	mg/l			Y (6)							
Chlorobenzene	ug/l			Y (6)							
Chromium (III)	mg/l			Y (6)							
Di-n-butyl phthalate	mg/l			Y (6)							
Dichlorobenzenes	mg/l			Y (6)							

Sampling Station		A-001	E-001			E- 001D		All P Sta.	All OV Sta.	All C Sta.	Misc. Observ.
TYPE OF SAMPLE	Unit	C-24	G	C-24	Cont.	G	C-24	O	O	G	O
1,1-Dichloroethylene	mg/l			Y (6)							
Dimethyl phthalate	mg/l			Y (6)							
4,6-Dinitro-2-methylphenol	ug/l			Y (6)							
2,4-Dinitrophenol	ug/l			Y (6)							
Ethylbenzene	mg/l			Y (6)							
Fluroanthene	ug/l			Y (6)							
Hexachlorocyclopentadiene	ug/l			Y (6)							
Isophorone	mg/l			Y (6)							
Nitrobenzene	ug/l			Y (6)							
Thallium	ug/l			Y (6)							
Toluene	mg/l			Y (6)							
1,1,2,2-Tetrachloroethane	mg/l			Y (6)							
Tributyltin	ng/l			Y (6)							
1,1,1-Trichloroethane	mg/l			Y (6)							
1,1,2-Trichloroethane	mg/l			Y (6)							
Acrylonitrile	ug/l			Y (6)							
Aldrin	ng/l			Y (6)							
Benzene	ug/l			Y (6)							
Benzidine	ng/l			Y (6)							
Beryllium	ng/l			Y (6)							
Bis(2-chloroethyl)ether	ug/l			Y (6)							
Bis(2-ethylhexyl)phthalate	ug/l			Y (6)							
Carbon tetrachloride	ug/l			Y (6)							
Chlordane	ng/l			Y (6)							
Chloroform	mg/l			Y (6)							
DDT	ng/l			Y (6)							
1,4-Dichlorobenzene	ug/l			Y (6)							
3,3'-Dichlorobenzidine	ng/l			Y (6)							
1,2-Dichloroethane	mg/l			Y (6)							
Dichloromethane	mg/l			Y (6)							
1,3-Dichloropropene	ug/l			Y (6)							
Dieldrin	ng/l			Y (6)							
2,4-Dinitrotoluene	ug/l			Y (6)							
1,2-Diphenylhydrazine	ug/l			Y (6)							
Halomethanes	mg/l			Y (6)							
Heptachlor	ng/l			Y (6)							
Hexachlorobenzene	ng/l			Y (6)							
Hexachlorobutadiene	ug/l			Y (6)							
Hexachloroethane	ug/l			Y (6)							
N-nitrosodimehtylamine	ug/l			Y (6)							
N-nitrosodiphenylamine	ug/l			Y (6)							
PAHs	ng/l			Y (6)							
PCBs	ng/l			Y (6)							
TCDD equivalents	pg/l			Y (6)							
Tetrachloroethylene	ug/l			Y (6)							
Toxaphene	ng/l			Y (6)							
Trichloroethylene	ug/l			Y (6)							
2,4,6-Trichlorophenol	ug/l			Y (6)							
Vinyl chloride	ug/l			Y (6)							

LEGEND FOR TABLE 1

TYPES OF SAMPLES

G = grab sample
C-24 = 24-hour composite sample
Cont = continuous sampling
O = observation

TYPES OF STATIONS

A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facility perimeter stations
OV = overflows and bypasses

FREQUENCY OF SAMPLING

E = each occurrence
H = once each hour
D = once each day
W = once each week
2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2H = every 2 hours
2D = every 2 days
2W = every two weeks
2M = every 2 months
2/Y = once in March and once in September
Cont = continuous
Q = quarterly, once in March, June, September, and December

TABLE 1 FOOTNOTES

(1) During any time when bypassing occurs from any treatment unit(s) in the treatment facilities, or to the emergency outfall, the monitoring program for effluent discharged from the treatment plant shall include the following in addition to the above schedule for sampling, measurement, and analyses:

a. Composite samples on an hourly basis for the duration of the bypass event for BOD and Total Suspended Solids analyses;

b. Grab samples at least daily for the duration of the bypass event for Total Coliform, Settleable Matter, and Oil & Grease analyses; and

c. Continuous monitoring of bypassed flow

d. When discharging through the emergency outfall (nearshore storm drain outfall), sampling and analysis for Total and Fecal Coliform shall be conducted daily at Receiving Water Sampling Stations C-1 through C-4 and at a point mid-way along the municipal fishing pier.

(2) Chlorine Residual concentrations shall be monitored both prior to and following dechlorination.

(3) Monthly receiving water monitoring for total coliform is required at Receiving Water Stations C-1, C-3, and C-10.

(4) Acute toxicity shall be determined using 96-hour flow-through or static fish bioassays. If static methods are used, then the discharger must use 24-hour composite samples

representative of the discharged effluent. Effluent used for fish bioassays must be dechlorinated prior to testing. One of the following test species must be used: three-spined stickleback, fathead minnow, or rainbow trout.

(5) If a static renewal bioassay protocol is used, then ammonia nitrogen shall be measured on the same composite sample used for the static bioassay. In addition, if static methods are used, then composite samples of the bioassay water shall be tested for pH, dissolved oxygen, and temperature at the start of the bioassay, and then daily for the duration of the bioassay test (i.e., at 0, 24, 48, 72, and 96 hours from the start of the static bioassay test).

(6) If any of these toxic substances are found in excess of the permit limits (Effluent Limitation B.5), then sampling and analysis for the substances which exceed the permit limits shall be conducted weekly until compliance is demonstrated in two successive samples.

(7) Daily records shall be kept of the quantity and solids content of dewatered sludge that is disposed, and the location of disposal.